

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000220**Date Inspected:** 14-Jun-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Jiang Weifeng		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Welder Qualification Side Bend Testing**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Robert Cuellar is present at the fabrication facility of Zenhua Port Machinery Company (ZPMC), LTD for the purpose of monitoring activities relative to the subsequent fabrication of the SFOBB Self Anchored Suspension Bridge. The following items have been observed,

Item	Description	WBS	Dwg No.	Status
1	Welder Qualification Side Bend Testing	N/A	N/A	N/A
	Welder/Welding Operator Side Bend Testing			

The Caltrans QA Inspector is present at the ZPMC testing center as requested by ZPMC for the purpose of observing scheduled Welder/ Welding Operator side bend testing. The Caltrans QA Inspector observed that ABF representative Mr. Kevin Dye and Mr. Jiang Weifeng of Moody International are also present for the witnessing of the scheduled side bend testing. Prior to side bend testing, the Caltrans QA Inspector and Mr. Jiang Weifeng performed dimensional measurements of the roller guided bend test jig per the requirements of AWS D1.5 (2002) Figure 5.16. The Caltrans QA Inspector utilized a digital caliper for measuring the rollers of the guided bend test jig. The Caltrans QA Inspector identified that the roller guided bend test jig is in compliance with the dimensional requirements of AWS D1.5 (2002) Figure 5.16 for A709 Grade 50 steel. ABF representative Mr. Kevin Dye was not aware of the requirements of the various guided bend test jigs verses the various steel types as identified in AWS D1.5 (2002). Included below is a digital picture of the roller guided bend test jig scheduled for bending the side bend specimens.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)



2 Welder Qualification Side Bend Tests N/A N/A N/A

ZPMC provided the Caltrans QA Inspector with a Welder/ Welding Operator list for the scheduled side bend tests. The Caltrans QA Inspector randomly selected several of the side bend samples and verified the dimensional sizes per AWS D1.5 (2002) Figure 5.11. The randomly selected samples measured were found to be in compliance with the dimensional requirements of AWS D1.5 (2002) Figure 5.11. Included below are digital pictures of numerous side bend samples prior to bending, during bending and after bend testing.



3 Welder Qualification Side Bend Testing N/A N/A N/A

ZPMC performed side bend testing for sixty four (64) Welder/Welding Operator qualification tests that totaled one hundred and twenty eight (128) side bend samples. Moody Representative Mr. Jiang Weifeng and ABF

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Representative Mr. Kevin Dye recorded that of the one hundred twenty eight Welder/Welding Operator side bend qualification tests performed, all but one Welder / Welding Operator met the requirements of AWS D1.5 (2002) section 5.19.2. The one Welder / Welding Operator that did not comply contained side bend samples that contained linear indications that exceeded the requirements of AWS D1.5 (2002) section 5.27.3.

The following list is a reflection of the record provided by ZPMC of the Welder/Welding Operator Side Bend Testing Results and the Caltrans QA Inspectors observation of such testing. A copy of this record is being maintained on-site by Caltrans for future verification.

Welder/ Welding Operator ID Number	Welding Process	Side Bend Test Results
070406016	FCAW	Compliant with AWS D1.5 Section 5.27.3
070406052	SMAW	Compliant with AWS D1.5 Section 5.27.3
070406056	SMAW	Compliant with AWS D1.5 Section 5.27.3
070406057	SMAW	Compliant with AWS D1.5 Section 5.27.3
070406061	SMAW	Compliant with AWS D1.5 Section 5.27.3
070406063	SMAW	Compliant with AWS D1.5 Section 5.27.3
070406064	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409001	SAW	Compliant with AWS D1.5 Section 5.27.3
070409002	SAW	Compliant with AWS D1.5 Section 5.27.3
070409005	SAW	Compliant with AWS D1.5 Section 5.27.3
070409007	SAW	Compliant with AWS D1.5 Section 5.27.3
070409052	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409054	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409056	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409060	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409062	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409063	SMAW	Compliant with AWS D1.5 Section 5.27.3
070409101	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409102	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409110	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409119	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409121	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409122	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409125	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409126	FCAW	Compliant with AWS D1.5 Section 5.27.3
070409128	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503014	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503020	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503013	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503003	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503007	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503033	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503002	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503017	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503047	FCAW	Compliant with AWS D1.5 Section 5.27.3

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

070503016	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503010	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503036	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503044	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503049	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503046	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503037	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503035	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503048	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503109	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503104	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503019	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503015	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503026	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503018	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503022	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503027	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503031	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503152	SAW	Compliant with AWS D1.5 Section 5.27.3
070503118	SMAW	Compliant with AWS D1.5 Section 5.27.3
070503122	SMAW	Non-Compliant with AWS D1.5 Section 5.27.3
070503119	SMAW	Compliant with AWS D1.5 Section 5.27.3
070503030	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503023	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503029	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503032	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503008	FCAW	Compliant with AWS D1.5 Section 5.27.3
070503009	FCAW	Compliant with AWS D1.5 Section 5.27.3

Summary of Conversations:

No conversations relative to the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Cuellar,Robert	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer
